THE
BOSTON MEDICAL AND SURGICAL
JOURNAL.

VOL. XI.] WEDNESDAY, NOVEMBER 19, 1834. [NO. 15.

CASE OF DEATH FROM BEING THROWN FROM A HORSE, WITH THE RUPTURE OF THE MEMBRANE OF THE RIGHT LATERAL VENTRICLE OF THE BRAIN.

WITH REMARKS ANATOMICAL, PHYSIOLOGICAL AND PATHOLOGICAL, AND NOTICE OF A CASE OF MISPLACED BRAIN.

BY JOSEPH COMSTOCK, M.D. OF LEBANON, CONNECTICUT.

[Communicated for the Boston Medical and Surgical Journal.]

W. B. ROBINSON, aged 30, a laboring man, was thrown from his horse June 3rd, 1834, and died in about twelve hours, never walking or speaking after the accident. A physician, if called before a jury, ought, Dr. Beck observes, to point out the cause or causes of death, in the body under examination; and a physician has a right to deny his evidence to a court and jury, unless he be permitted to open the dead body. There was no jury in this case; but a medical man will not consider his duties to *truth* increased by being under oath. His duties to his profession, and to his medical brethren if called into consultation with them, impose on him the same sanctity as though he was making his affidavit.

To do justice to an attending physician or surgeon, he ought, as far as possible, to ascertain the causes of death, and, as far as his judgment dictates, to decide whether they were of such a nature as to be beyond the reach of art. Anatomy, for this purpose, must be known. For, as the respectable surgeon who operated in this case suggested to the present writer, *a part of the brain has naturally a diseased appearance.* This diseased appearance, therefore, is its natural and healthy state; and although not noticed by all anatomists, is fully described by John Bell, as found in the *plexus* of the *lateral ventricles*. But it was not noticed in the *post-mortem* inspection of the present subject, nor is it noticed by all the writers upon anatomy who are eminent in that science. There is some doubt, therefore, of the universality of this diseased phenomenon, and this doubt is confirmed by Mr. Bell himself as he proceeds, by the use of the word "often." For after minutely describing the seat of this *plexus*, we are told, that "these have often a diseased appearance, being hard, and as if scirrhous or full of little vesicles or hydatids."

Minute anatomy was perhaps never known, in all its minutiæ, to one single anatomist. It is for this reason that various former writers are referred to, for proof of the existence of parts which every modern anatomist does not find it easy to demonstrate. Slight anatomical deviations are obviously accounted for, when it is considered that healthy bodies do not fall under the anatomist's knife; for, unless a body be dead of some disease or derangement of parts, it has no place in a dissecting room.

And in some cases, as in the present, a doubt may arise whether a given phenomenon be caused by injury, or malformation. This does not apply, however, to the rupture of the membrane of the ventricle, which was palpable, but to the *non-adhesion* of the *dura mater* to the *skull.*

The general structure of the human frame is surprisingly homogeneous. Parts, which, to eyes the most scientific, might have been as well formed differently, are in the petrifaction, in the mummy, and in the modern, found, in shape, number and arrangement, the same. There is no proof of the common origin of man more conclusive than this. From the poles to the equator, the progeny is in form but the ancestor. As though one man's bones and brain had stood eternal, his offspring is his eternal prototype. We are here understood as not speaking of morbid anatomy, malformation, *lusus naturæ*, nor phrenology. A single correct treatise on anatomy would therefore be sufficient for the whole world, and all the medical and surgical men in it.

The anatomy of the brain is well settled, but its physiology and pathology are matters upon which opinions are vastly discrepant and conflicting. Dr. Rhinelander, "Demonstrator of Anatomy in the College of Physicians and Surgeons, New York," after enumerating many cases and dissections, and giving the result of much practical experience, comes to the following extraordinary conclusion, and says, that "Cases might be multiplied, but the inference is just, that extravasated blood, depressions of bone, or water on the brain, are not the immediate causes of sudden death, or that they do not even produce coma, stertorous breathing, or the loss of intellect."* Such a conclusion, although contrary to other writers, and to our own experience, leads to a more humane mode of treatment than that adopted one or two centuries past, when the same patient, for the same accident, was trepanned ten or twelve times! Nay, even more, as the following certificate, dated August 12th, 1664, written by the Count of Nassau after his recovery, will serve to prove:—"I, the under-written Philip Count of Nassau, hereby declare and testify that Mr. Henry Chadborn did trepan me in the skull twenty-seven times, and after that did cure me well and soundly."†

This practice of trepanning away the whole skull, has been followed by its opposite extreme, that of not using the trepan at all; which doctrine was advocated, if not first introduced, by John Bell. It is at present, I believe, viewed by most eminent surgeons, if the term be allowable, as a *surgical heresy*, and meets with suitable censures by Mr. John Augustine Smith, in his edition of Bell's Surgery, a note from which work, relative to the subject, is here introduced, as it is strikingly in point. Mr. Smith tells us that "A case is related by Mr. Cline, in his lectures, of a seaman on board an English ship in the Mediterranean, being knocked down by something falling from aloft. He was rendered insensible by the blow, and in this state carried to Gibraltar, where nothing was done for him, and thence to London, to St. Thomas's Hospital, still in a state of insensibility. Those who were with him knew when he wanted to eat or drink, by certain motions which he made. He had likewise a catching of the fingers of one of his hands. His head was shaved ; a depression (of one of the parietal bones, I think) was discovered, for which Mr. Cline operated. That very evening the motions of his fingers ceased, and in a few days his senses were entirely restored. What is very remarkable, when he first became rational he thought himself still cruizing in the Mediterranean, having no idea of the lapse of time, or change of situation, which had taken place. I do not recollect how long he remained in that insensible state, but it must have been several months." (p. 328.)

---

* New York Medical and Physical Journal, 1828, p. 43.

† Smith's Bell, p. 302.

In the present case it appears that Mr. Robinson obtained the loan of a restive horse to ride to a store in this town, some three or four miles from his residence in Franklin, to obtain his summer supply of *seven* or *eight* pounds of tobacco. I have heard of no suspicion of intemperance in the man. His horse was seen running with him down a steep hill about half a mile from the store, near the foot of which he was found insensible. The spot where he fell was plain, but the path hard. He was taken up and carried to the nearest house. A physician near by was called, who bled him ; but the medical gentleman informs me that he seemed rather to sink than to rise by the loss of blood. This was in the afternoon. The next morning a gentleman of distinction in both the surgical and medical departments was called from a neighboring town, who came with his trepanning apparatus. But viewing the case as a very serious one, he did not choose to apply the trephine without further counsel. It was at this period that I was called and first saw the patient, the physician first called being in attendance, and two others subsequently arrived. Viewing the case as a very alarming one, from the stertorous breathing, absence of all voluntary motion, and the drawing down of the chin and under jaw, which latter signs have with me always proved fatal, whether from accident or disease, I did not hesitate to agree to the propriety of applying the trephine. Although there was no fracture, there might be extravasated blood between the skull and *dura mater*, pressing on the brain, which an operation might remove, and thus give the dying man a sight of his friends and of the world before he left them forever, and possibly a chance to dictate his will. These were all that I could expect. I viewed it a fatal case. A crucial incision had been made before my arrival, but it was over the temporal bone. The parietal bone of the same side was judged most proper, however, for the operation, and it was there performed, cautiously and judiciously, by the surgeon in attendance. But there was no extravasation on the *dura mater*. This membrane, however, was protruded upwards into the opening made by the removed piece of bone, indicating mischief below, and therefore was punctured by the operator. About half a gill of serum immediately gushed out, clear and pellucid as the finest spring water. This was succeeded by more, which was colored. No relief took place from the operation. Death was apparently neither hastened nor retarded by it. The man died, and a *post-mortem* inspection was soon after made.

There was no appearance of injury in the cortical part of the brain, where we commenced the examination by slicing, and in this respect the writer's anticipations were not verified. It appeared to have been the right side of the head which struck the ground, and it was the right parietal bone which was trepanned. Upon examining the ventricle of that side, the membrane lining the ventricle was found ruptured. This tender lining, which is derived from, or rather is a continuation of, the *pia mater*, had given way to the extent of about half an inch towards the upper part of the ventricle, and about one-fourth of an inch towards its back part. Forwards the rupture ran to a point; the whole forming an irregular triangle, leaving a portion of the brain denuded. The pineal gland was noticed, and upon rubbing it between my thumb and finger no particle of sand or any hard substance could be felt.

Upon the cerebellum, there was a clot of blood, entirely unconnected, however, with the rupture found in the ventricle. This clot on the cerebellum was of the size of a quill, and about an inch and a half in length. It resembled, as to size, length, and the part on which it was found, exactly what I had once seen in another case on a jury of inquest, when the head of a man, who died of apoplexy, was examined by another member of the profession, who was with me on the jury. And from this striking resemblance, it has since occurred to me that Mr. Robinson might possibly have been seized with a fit before he fell. Of apoplexy attacking on horseback, I had a case some years past. It is true that Robinson was not of the shape of persons who are supposed most liable to apoplexy. But upon this point I can call to mind five cases in which that disease occurred in tall men, not corpulent, and three of them with long necks.

I do not recollect the mention of any case in which the membrane of a ventricle was ruptured, although J. Bell mentions one in which there was a rupture of the brain itself. In cases of death from concussion, from the heavy cranium above, with its contents, and the slender spinal cord below, where it begins from the *medulla oblongata*, it is probable that here immense injury is often sustained. But as the friends were waiting to take home the body, our examination ended when we had found the causes of death.

There was some water found in the ventricles, which some anatomists consider as in all cases a preternatural and diseased deposit. Dr. Rhinelander, on the contrary, views it as no sign of injury or disease, and that a large accumulation is rather a remedy than a malady, as serving to relieve the brain of its extra fluids, for which purpose he thinks that these cavities were formed—a suggestion certainly worthy of consideration. Yet to me it appears that plethora of the brain, thus relieved, is at the expense of congestion in parts still more vital, and ultimately at the cost of life; especially if the unqualified assertion of Dr. Rush is correct, that this king of parts—the brain—*is not furnished with any absorbents.* But upon this point, if we are to rely upon alcohol having been discovered in the ventricles of the brain in so concentrated a state as that it was found to *burn*, the fact of absorbents in the brain must be at once conceded. For it is impossible to account for its presence in the ventricles, unless by means of the absorbents. And that a liquid, having the smell of whiskey, was thus found, and which burnt with a blue flame, is asserted by Dr. Kirk, of Glasgow. I am likewise referred to another case, through the medium of the Journal, by your politeness, Mr. Editor, and that of Dr. North, of Hartford, as having occurred in London. An appetency of the absorbents for this article, leading from the stomach to the brain, and an appetency of location, by its deposition in the ventricles, would therefore seem to be the natural inference. For in no other part of the body, nor in any of the secretions or evacuations, have we ever heard of alcohol, thus concentrated, having been discovered. The reason, then, why alcohol more intensely affects the brain than any other part of the body, when taken in excess, is to be accounted for by its being carried to that part *unassimilated*. A precious fact for those attached to the humoral pathology, and to the doctrine of specifics. For if a certain liquid acts on the brain with a specific effect, why may not other medicated liquids be found which will act upon every distinct viscus, gland and tissue, in the same manner? And if the brain has a thus rapid inlet from the stomach for a certain liquid, it is to be hoped that some medicine may be discovered which will produce as sure and speedy an effect in evacuating cerebral congestions. Dropsy of the brain will then become more manageable; and that two cases of it have been cured by exciting the stomach by reiterated doses, to the amount of thirty or forty, of tartar emetic and calomel combined, has fallen under the present writer's notice. The stomach is the outlet of the brain; but of that substance which will as speedily *disgorge* it of congested matters, as alcohol will *gorge* it, we are ignorant. We might speculate at great length upon this subject, which, if the proof turns out to be ample, is fraught with consequences of importance in pathology and physiology. We have only to regret that our knowledge of it is derived from the melancholy source of persons having died drunk. But nature often reveals her secrets through strange and unlooked-for mediums. Disease and death, and cruel experiments upon living animals, are sources from whence have been derived a great part of what is known concerning an art the most humane and benevolent of all.

But I must now advert to one phenomenon in the present case which was singular, and difficult to account for in a satisfactory manner. It was not perhaps noticed by all the medical gentlemen present; but by myself, and Dr. Dutton, who was nearest me, was distinctly observed. *It was the entire separation of the dura mater from the top of the skull.* The saw which was used was a mechanic's, and a dull one, the surgeon having none with him but Hay's; and a thin lever was made use of to disrupt the bony fragments that remained undetached, after sawing around the cranium. But upon this being done, the top of the skull fell loose into my hands, without any adhesion by a single point or fibre. It seems difficult to suppose that this entire detachment was produced by the fall, unless it had at the same time fractured the skull, which was rather thinner than common. But there was neither fracture nor fissure of any bone. But admitting that the disruption was occasioned by the accident, there is another point still more mysterious, which is the entire absence of all effusion between the cranium and *dura mater*. Nor was there any bloody points on either the inside of the skull-bone, or on that membrane, denoting the pre-existence of any adhesion. Now the *dura mater* is represented, by Mr. Cooper, as adhering to the cranium by its whole surface. And Mr. Pott says, that it "is almost as intimately attached to the inside of the skull, as the pericranium is to the outside, and by the same means, viz. by vessels." And he goes on to state, that "a considerable degree of force will be found necessary to detach the sawed bone from the adjacent membrane ;" and that "when it is removed, a great number of bloody points will be seen all over the surface of the latter, which points, if wiped clean, do immediately become bloody again, being only the extremities of broken vessels." Mr. Pott next speaks of "these vessels being largest at and about the sutures," where he represents "the adhesion to be strongest, and the hemorrhage upon separation the greatest." But there was neither in this instance. Mr. Pott also speaks of the natural complexion of the *dura mater*, as of a "bright silver hue." And here is another point of disagreement, for in the present subject the complexion was uniformly reddish, and the little vessels seemed full, as though slightly injected.

The first indication of the separation of the *dura mater*, was the *non-adhesion* of the *button ;* the next was the protrusion of the distended membrane upwards into the orifice made by the trephine. This was the more remarkable, as the instrument used was small, not leaving an opening, or circle, more than half as large as I had before seen. This protrusion was so manifest as to induce the operator very judiciously to puncture, as before observed, the membrane. Very different was this pushing upwards of the *dura mater*, from a case before me, related by John Bell, whose description, after the removal of the bony circle, is as follows. "The dura mater," says he, "was then seen white and clean, firmly attached to the bony circle." Mr. Bell does not suppose the separation of the *dura mater* from the skull as in every instance the immediate cause of death, for he mentions the case of a man who lived four years after such an accident.

It may be made a question whether the pellucid fluid, evacuated in the case of Mr. Robinson, upon puncturing the *dura mater*, was owing to the accident, or whether it was anything more than that liquid which M. Magendie describes as surrounding and immersing the brain and spinal cord. Magendie announces the discovery of this liquid as new and made by himself, that is, as to its existence in all healthy persons, it having formerly been supposed to be the product of accident or disease. His account of this *cerebro-spinal fluid*, of an aqueduct discovered by himself, and of the use of the pineal gland, were read before the Royal Academy of Sciences in June, 1828. Altogether, this Memoir is a most interesting one, and did not fall under the notice of the present writer until since he commenced writing the present case. Indeed, this case put him upon investigation. For that the pellucid fluid, evacuated when the *dura mater* was punctured, was the effect of the injury, seemed impossible. The rupture of the ventricular membrane, and the clot of blood on the cerebellum, were either of them sufficient to have caused death ; and these lying beyond the reach of art, we conclude that everything was done for Mr. Robinson that humanity and skill could suggest.

We ought to notice that the pupil of one eye was dilated, whilst that of the other was contracted ; and that this state of the eyes, whatever the reason may be, is a more certain indication of fatality, than when they are found alike, whether the pupils be much dilated or much contracted.

A parallel to this fact may be noticed respecting the pulse, in certain irregular and not well-defined diseases. When the pulse in one wrist is rendered, by morbid action, more feeble than in the other, the prognosis is always unfavorable. I do not know that this has ever failed, although in one case the fatal failure of the patient was at a period considerably distant. I hope, however, that there may be exceptions; for at this time I have a very interesting gentleman under my care, in which this state of the pulse augurs ill, although in other respects there are favorable symptoms. His case began in sternalgia, of which he has had nothing lately; but he has now infallible signs of hydrothorax. As the pulse in both wrists is caused by the motion of *one* heart, it is difficult to conceive that in one wrist the pulse can be quicker or slower than in the other. Yet Dr. Rush makes this assertion respecting the Hon. Mr. Kittera's pulse. A short time before the Doctor's death I wrote to him upon this very subject, and have his answer; but it affords no explanation. No reason is given by which such a case can be conceived possible. It must therefore be placed among Dr. Zimmerman's cases of *false experience.* The pulse may be more feeble in one wrist than in the other; but it cannot be slower, unless in the dying state there is a partial death or a convulsive state of the arterial system. But Mr. Kittera is stated to have been on the recovery from a fever, when this discrepancy of the pulse occurred.

You owe this communication of the case of Mr. Robinson, Mr. Editor, to the suggestions of an eminent and highly valued friend.* Happening to mention it in the course of our correspondence, he desired that it might be published in your interesting Journal. And perhaps an accompanying remark which he made in his letter, may be found of more value in practice, than anything in this communication. He questions the propriety of depletion when the powers of life are rendered low by concussion; and mentions a case of his own, of a man who fell from a scaffold, and who was "roused by irritation, warm external applications, and frequent doses of brandy sling," and who recovered under this treatment.

An anecdote of the late Dr. Danforth, of your city, occurs to my recollection, which is in point. Several workmen having been injured by the fall of the frame of a building, Dr. Danforth was sent for; but being absent, another physician was called, who bled the patients. Whilst thus engaged, Dr. D. arrived, and the physician in attendance observed to the Doctor that he was doing his work for him. "Then," replied Dr. D., "*put all that blood back again.*"

The objections to bloodletting, whilst the powers of life are low, are certainly well founded; but when reaction takes place and is violent, and especially when raging mania is the consequence of an injury of the head, the free and frequent use of the lancet is undeniable. John Bell mentions a case of the latter from Jacotius, in which the patient lay speechless a long time, and apparently dying with convulsions. Suddenly, in the middle of the night, he started from his bed and fell upon his attendants with maniacal fury, felling them to the ground with whatever missile he could lay hold of. After a long struggle he was quelled by a strong man kicking him violently in the testicles. When bloodletting is used in cases of injury of the head, or of mania, the jugular vein or temporal artery should be chosen, especially if bleeding from the arm does not succeed. Another case, mentioned by Mr. Bell, is conclusive upon the benefit of blood being evacuated from the head. A young man, filled with wine, on returning home from a pleasure excursion, was violently thrown from his horse, and bled from his mouth, nose and ears at first, and from *one ear* for *ten* days, and recovered. Thus the accident produced its own remedy. And since the occurrence of the present case, the writer had occasion to be impressed with the benefit of opening the temporal artery in mania. Having a furious molatto maniac, 24 years old, to attend, and after having bled him freely from the arm three times in twenty-four hours, and finding further bloodletting necessary, the temporal artery was opened. A teacupful of blood was obtained from this source, which seemed to have more effect in calming his rage than the three preceding pints. The fellow was sensible of relief, and pointed to the scar in his temple from whence the blood had flowed as the cause. It was found necessary, however, to draw more blood afterwards, and the other temporal artery was opened. He has now recovered and returned to his labor, having, in addition to the bleedings, been kept upon a saturated solution of tartar emetic, and had the top of his head shaved and blistered.

---

* **Thomas Miner, M.D. President of the Connecticut Medical Society.**

The anatomists of the present day proceed, microscope in hand, endeavoring by this means, as Magendie observes, to discover some part, or passage, before undiscovered. This shows the perfection to which *unassisted eyes* have carried the art of anatomy. But the great difficulty still remains. For as no human body, not dead by some accident or disease, falls under anatomical dissection, the grand desideratum is to tell, with assurance, what the healthy state of the solids and liquids is, and then to point to their morbid states when the latter are discrepant. Magendie seems to have proved that the brain and spinal marrow are, in their healthy state, immersed in a pellucid fluid, and that this fluid circulates in and about the ventricles, partly at least by means of respiration—not in the bloodvessels nor absorbents, but in certain aqueducts discovered by himself and others; that it varies by abdominal compression; that it stimulates the spinal cord, nerves, and muscles, when the laborer's body is bent in exertion; that it is thrown on one part of the brain, when the *man of thought* bends his head forward or backward, or throws it on one side, in study and meditation.* These, and the accompanying discoveries and remarks of Magendie, are by far the most important of any anatomical communications which the world has received for the last century, and afford the best theory of respiration. The use of the pineal gland is that of a valve, or rather *heart* of the *brain*, to regulate, facilitate and modify the circulation of the *cerebro-spinal fluid*. Respiration helps to keep up its motion. Abdominal compression is dangerous, from its interrupting this motion, or influx and reflux. Hence apoplexy from costiveness, or indigestible food in the stomach, which are also observed to make it difficult, in some persons, to "fetch a long breath."

---

* Some of these remarks are deductions from Magendie's discovery, which he does not mention. His memoir, in a condensed form, may be found in the New York Medical and Physical Journal for 1829.

But I fear that I am trespassing on the limits of your Journal, and shall conclude with a short account of a child born with its brain *out of its cranium*, and which lived seventeen days.

This case occurred in June, 1829. It was the second child of a Mrs. C. a healthy young woman, and her first child was also healthy. I was called to attend her in the morning of June 4th. Nothing unusual as to the woman occurred in the progress of the labor. But to me the case was embarrassing. Upon examination, I at first supposed that the placenta adhered to the head of the fœtus, a large soft substance being felt without any bones! It was not until delivery that the mystery was fully developed, although I soon found that my first impression respecting the placenta was not correct, and gave the woman to understand that a deformed infant might be expected.

When it was born, its appearance was truly extraordinary; a head presented to the astonished attendants, above the true head, of more than twice its size! Upon examination, the phenomenon was no longer involved in Cimmerian darkness. A hole, a little larger than a cent, was felt through the skull, which had suffered almost the whole contents of the cranium to escape into the pericranium. That the little creature should have lived the day out, was beyond my expectation; it however did live the period above stated. It was nourished mostly by hand, there being a deficiency of the mother's milk, and the *extra head* being in the way of drawing the maternal breast. There was a tenderness also about this immense tumor, as I conjectured, from its crying with a most pitiful moan, when it was handled, unless with cautious tenderness. I visited the little object several times during its short existence, out of curiosity, and others not of the profession did the same. Judge W., among others, paid it a visit, and thought that I underrated the size of the tumor; he thought it *three times* the size of the true head. It is true that the latter was rather small, doubtless owing to the brain being without the cranial bones and not filling their cavity, nor distending the incumbent parts.

But besides this *spina bifida* of the skull,* this infant had real *spina bifida* of (I think) the lower *dorsal vertebra*, and not of the lower *lumbar*, where it most often occurs. The tumor above this opening in the spine was large for a small infant, being about the size of a half hen's egg. I desired the family to give me information of its death, which was daily expected, that I might make a *post-mortem* inspection. This they did on the 17th day after its birth. Elisha Hutchinson, M.D. then of this town, accompanied me and assisted in the dissection.

The hole in the skull was as circular as if it had been cut with a trephine. It was caused by a deficiency of a part of the left parietal bone, where it joins the *os occipitis*, and also of a deficiency of part of the latter. The edges of the circle were smooth. We ascertained that it was truly the brain which formed the contents of the tumor. Within the cranium, there might be a tablespoonful of brain remaining, although Dr. H. thought there was not so much. The hole in the vertebra was also round, and of the size of a quill. The tumor above this hole was filled with a yellowish fluid, slightly glairy. I should think that the brain itself was rather large, and that its weight was greater than all the contents of the thorax and abdomen combined. This largeness of the brain might have been the cause of nature's trepanning the skull in the womb !—in other words, of its failing to keep it within its proper enclosure—the brain, as we are taught, forming before the bony process begins.

---

* The term *spina bifida*, applied to the head, is a misnomer. We have authority, but not propriety, for thus applying it.

The immediate cause of this infant's death was probably a beginning of sphacelus of the contents of its false head. I attempted to preserve the parts in chloride of mercury dissolved in alcohol, but putrefaction had progressed so far that I failed. It is easy to conceive that the distance of the brain from the heart would prevent its being properly nourished by the blood sent into the carotid arteries.

Incontinency of the contents of the bladder and bowels, with paralysis of the lower limbs, and ultimately the certain death of the infant, all from *spina bifida* of one vertebra, are accounted for by the discovery of Magendie. The *cerebro-spinal fluid*, being let out by the orifice, forms the contents of the tumor, and deprives the spinal cord and its nerves of that degree of health and action which are necessary to the muscular motions of life.

The cure, if cure be possible, must consist in pressing back the contents of the tumor, and retaining them in their place. The nervous juice, so called, seems to be a pellucid fluid acting on the brain, spinal cord, and nerves, *externally* ; but on the first of these, where exists the *sensorium commune*, *internally* likewise, in and about the ventricles ; the pineal gland regulating its motions, and acting the part of a heart to the brain. The appearance of this improperly named *gland*, demonstrates that during life it has a motion. Respiration serves to assist the brain, as well as the blood ; the action of the pineal gland, as well as the heart. *Life* is motion, and total rest is *death*.

Lebanon (*Conn.*), *October*, 1834.

THE "SALT RHEUM" AGAIN.

[Communicated for the Boston Medical and Surgical Journal.]

MR. EDITOR,—As the first draught of the following communication was actually made out before Dr. Williams's letter in the Journal for last Wednesday came to hand, perhaps you will think it not altogether out of season to insert it in your next, or a future number.

I had intended, several weeks ago, to answer the second query of your correspondent " W. W." in the Journal of the 17th of last September ; but have not been able, till now, to execute my intention. And now, considering that so many have been pleased to say what they thought proper upon the subject, I present what I have to offer with not a little diffidence. If, however, what follows should be deemed of sufficient importance to be laid before your readers, it is respectfully submitted.

Your correspondent " W. W." wishes " to inquire the technical term for that affection of the skin, which is vulgarly or familiarly known by the name of *salt rheum.*"

The term salt rheum, has, formerly, with me, excited much curiosity. I should, long ago, have proposed the query of " W. W." if I had known where to look for an answer. But my curiosity, it seems, extended much farther than that of " W. W." I felt interested to know *three* particulars respecting the term salt rheum : viz. ***First***, the origin of the term ; ***Secondly***, the extent of its use or employment, among people, in and out of the profession ; and, ***Thirdly***, its nosological character or relation. On all these topics, Mr. Editor, with your approbation, I shall offer a few observations, and state a few facts. And,

First, as to the origin of the term.—Whether the term " salt rheum " was introduced into this country, in the colloquial language of " the Pilgrims," or other early emigrants ; or whether it originated among the people, *after* the settlement of the country, I am unable to say. I have never met with the term in any European book, nor in any book published in this country earlier than the second volume of Dr. Douglass's " Summary,"* which was printed in " Boston, New England," according to the title-page, in the year 1753. The term is again found in the first volume of " Collections of the Massachusetts Historical Society," page 274, in a Bill of Mortality, &c. for " the third precinct of Brookfield," Massachusetts, for the year 1790, by the Rev. Nathan Fiske, the minister of that place, at that time. I have met with the term again, in the sixteenth volume of the New York Medical Repository, page 5 (which was published—the four quarterly numbers constituting the volume—in the years 1812 and 1813), in a communication from the late learned Dr. Felix Pascalis, of the city of New York. I have never found the term in any Dictionary, Lexicon, or Glossary, before Dr. Webster's stupendous work ; nor in any medical book, except the N. Y. Med. Rep. as above mentioned. If I might be allowed, Mr. Editor, to propose a query or two, I would ask—When, where, and with whom, did the term " salt rheum " originate ?—is it an " Americanism ? "

Secondly, as to the extent of its use, or employment.—On this topic I must confess myself as much in the dark, as on the former : I believe it is in familiar use in all the North-Eastern States, at least, and has been for a long time ; but whether it is employed in the Middle, Southern, and Western States, I possess no documents that enable me to say. I can distinctly recollect its application to a case of cutaneous disease, more than *fifty-four years ago* ; and then it was used by a person nearly *eighty years of age.*—Dr. Douglass, in the volume above referred to, speaks of it as *peculiar* to our country ; his words are, " such as the *psora* of *North America*, called a *salt rheum :* " and Dr. Pascalis speaks of it in the same manner ; his language is—" A very remarkable disease in this country deserves particular notice by its obstinacy and incurability, that is, the *salt rheum, psora diffusa,* &c." Now, is the cutaneous defœdation to which the name " salt rheum " has been generally applied in our part of this country, *peculiar* to it ? I think it is not : and so far as my acquaintance with the use of the term, both by physicians and others, qualifies me to judge, I am clearly of the opinion that we have, described, in more than one European publication on cutaneous diseases, a form of disease which very exactly corresponds with the character of what, amongst us, is generally known by the name "salt rheum."

---

* **" A Summary, Historical and Political, &c." By William Douglass, M.D.**

Thirdly, as to the nosological relation or character of salt rheum.—It is remarkable that both Dr. Douglass and Dr. Pascalis seem to think that salt rheum, in some cases, at least, may be of syphilitic origin; and we know that this opinion is maintained, at the present time, by the very best authority; not that the person afflicted with the disease, has, himself, derived it immediately from morbid sexual intercourse, but that he may have derived it, "*ex traduce*," as Dr. Douglass expresses himself, from some of his progenitors, proximate or remote. They both, also, it seems, considered the disease a "*psora*." Now it is well known that our latest and best writers on cutaneous diseases, such as Willan, Bateman, and Cazenave and Schedel, for good and sufficient reasons, *as they think*, and which, I believe, are considered satisfactory—but which I need not quote—have adopted the term "*psoriasis*," instead of "*psora*," as applicable to a *genus* of cutaneous diseases: and if this change of terms be just, it is next to be inquired, whether, what is commonly called "salt rheum," belongs to the *genus psoriasis*, or not; and if it does, the next inquiry is, with which *species* of that *genus* does its character, as it commonly appears amongst us, best correspond—that is, what is its "technical," or true nosological name? or with what term, found in our books of Nosology, is it *synonymous*? Now, as there is nothing in the etymology of "salt rheum" to entitle it to *one* place in a system of nosology rather than *another*, I take it that an answer to these questions is altogether arbitrary, and will depend, entirely, upon the use that is made of the term in different places, and by different persons; that is, upon the character of the disease to which each one, according to his understanding of the term, thinks proper to apply it; for as the poet has well observed,

> ——————————Si volet usus;
> Quem penès arbitrium est, et jus, et norma loquendi.—HORACE.

I know that two of your correspondents consider salt rheum a form of "herpes;" and that Dr. Webster, in his Dictionary, explains the term "salt rheum" by the word "herpes;" and perhaps this application of the term corresponds strictly with *their* acquaintance with its use. But from *my* knowledge of the use of the term among the common people and by physicians, before my acquaintance with medicine and since, I have been led to conclude that "the term" "salt rheum" belongs to the order "*squamæ*," and the genus "*psoriasis*," of our latest and best books on cutaneous diseases;* and that the "technical term" with which it is a *synonyme*, or with which it is *synonymous*, is "*psoriasis diffusa*;" or, perhaps, "*psoriasis inveterata*," just which the practitioner under whose eye a particular case of the disease may occur, may think most proper to employ. Yours respectfully,

Lynn, Nov. 7th, 1834. RICHARD HAZELTINE.

---

* **Willan, Bateman, Cazenave and Schedel.** ***Philadelphia*** **editions.**

P. S. Since my communication on Salt Rheum was presented to you last week, I have again accidentally met with the term; and it is found in a review of a "*Dissertation on the Mineral Waters of Saratoga*," &c. by the late "Valentine Seaman, M.D." of the city of New York. Said Review is contained in the 13th volume of the New York Medical Repository, page 57. The term occurs in a quotation from the said Dissertation; and is as follows, page 62, viz. "The carbonic acid itself, when applied in another form, I have repeatedly found an effectual remedy in some obstinate herpetic affections, as the *psoriasis diffusa* and in the *palmata*, or what is commonly called the salt rheum; a simple solution of salt has also sometimes effected a cure." Now, wherever in a system of Nosology *salt rheum* may have a place assigned it, nothing, I believe, in that branch of medicine is better established, than that *psoriasis is not herpes; nor herpes, psoriasis:* herpes belongs to the order *vesiculæ*, and psoriasis to the order *squamæ*, according to the arrangement in our best and latest books on cutaneous diseases. See Willan, Bateman, &c. as already referred to. R. H.

November 14, 1834.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, NOVEMBER 19, 1834.

MEDICAL SCHOOL IN BOSTON.

On Thursday of last week, George Hayward, M.D. of this city, the professor in the newly-created chair of the Principles of Surgery and Clinical Surgery, in the Medical Department of Harvard University, gave a discourse, introductory to the course of lectures upon which he has now entered. It was characterized, throughout, by plain, unaffected good sense, and must have favorably impressed the audience with his qualifications and zeal in the discharge of the arduous duties devolving upon him in the responsible relation of a public teacher in a school of medicine. Dr. Hayward is no stranger to the public—having been many years in active practice, and also connected with the Massachusetts General Hospital, as one of its surgeons. An official situation in that very valuable institution, will enable him to introduce his class at once to the bedside of the patient—an advantage of incalculable benefit to the pupil, who there notes those phenomena of disease on which the surest foundation is laid for carrying into successful practice the great object which medical science has in view—relief to the sick.

While we congratulate Dr. Hayward on an appointment for which he is so well qualified, we are also gratified that the students are thus placed under the guidance of an instructer who is abundantly able to counsel and instruct them through the mazes of the first principles of surgery, and who will be the abiding friend of those who by diligence, perseverance, and honorable deportment, recommend themselves to his esteem.

This school certainly offers advantages, to medical students, which are by no means surpassed in the United States, and we are gratified to remark that its present prosperity evinces the confidence of the public. For the study of practical anatomy, it is no where rivalled, either in the richness of the cabinet or in the facilities afforded those who have any desire of becoming intimately acquainted with the minute structure of the human frame.

LECTURES AT THE MASSACHUSETTS EYE AND EAR INFIRMARY.

Having attended the introductory lecture at this Institution, and gathered, from the observations which were made, the design of illustrating the diseases of the eye by cases under treatment in the Infirmary, we give our unqualified approbation of the course, and most heartily recommend the lectures to young gentlemen in the study of medicine, and indeed to all such practitioners as can possibly afford two hours in the week to the acquisition of such an important species of practical knowledge as may be there acquired. No person, however discriminating or methodical, can gather, by reading the best works extant, even when accompanied by highly-finished drawings, that exact information in relation to the appearance of the different textures of the eye, in a state of disease, which the organ itself presents. Arguments are by no means necessary to convince a medical man of the truth of this remark. To such as are pursuing professional studies, a regular attendance at the Infirmary, and a careful attention to the pathological and surgical doctrines there taught, would have an important influence upon their practice in after life. It is not an easy matter to become a skilful oculist :—to a minute acquaintance with anatomy, must be superadded close habits of discrimination, or more blind persons will be made permanently so, than will be benefited by the operations of one who is neither qualified by study nor aided by experience.

The beauty and accuracy of the wax models lying on the table, at the lecture alluded to, were never excelled by anything of the kind in this country. Indeed, the wet preparations referred to in the order of demonstration, were such as the practical anatomist would consider very valuable in his cabinet.

Dr. Jeffries requires no fostering at our hands, in a community where he is so well established, to convince those to whom his practical lectures on diseases of the eye are particularly recommended, that he is well qualified to teach others both the art and the science which he himself so well understands.

Clinical Proofs of Distinct Nerves for Motion and Sensation.—1. Being called to an elderly woman, suddenly taken down with hemiplegia, which proved fatal, we proceeded to bleed her ; and performed the operation in the arm of the affected side, as happening to be most convenient. On making the puncture, although previously unaware of what was impending, she screamed out from the pain, and threw her other arm about with violence ; but that in which the puncture was made, remained as motionless as if it had been dead.

2. About the same period we saw, for a single time only, a young woman on board a steamboat, who had very little sensibility in one side, while its power of motion was nearly unimpaired. She appeared to be recovering ; but we never had an opportunity of learning the termination of the case. The disease had come upon her suddenly.

3. Very lately, a gentleman from the South presented himself to us with a paralysis of one side of his face, of six or eight weeks standing. The forehead of that side, as is usual in such cases, was smooth, the eyelids could not be closed without a great effort, and the angle of the mouth hung a little, and was drawn forward by the superior action of the antagonizing muscles of the other side. Notwithstanding all this loss of power in the motory nerves of that side of the face, its sensibilities were perfect, both in relation to heat and cold, and to mechanical irritation of every kind.

We would earnestly recommend to our readers to be diligent in their observation on cases of paralysis, with a view to this subject.

Western Journal of the Medical and Physical Sciences.

Wound of the Longitudinal Sinus and Brain—Convulsions—Spasmodic Contraction of the Dura Mater.—We are indebted to Dr. John F. Carmichael, of Mississippi, formerly a surgeon in the army of Gen. Wayne, for the following fact.

A soldier in the celebrated battle of the 20th of August, 1794, was shot through the head. The ball entered the centre of the upper part of the forehead, and passing between the tables of the skull, made its exit about three inches back. The bone was of course torn to pieces, and a great number of fragments were driven downwards, even to the depth of two inches into the brain, a considerable quantity of which escaped. The symptoms were those of apoplexy. Upon removing the scalp and trimming off the edges of the bone, the oblong opening of the cranium was wide enough to admit the finger. No hæmorrhage *then* occurred, but was said to have been profuse before the patient came into Dr. Carmichael's hands. In attempting to extract the spiculæ of bone, with forceps pushed into the substance of the brain, a kind of cataleptie convulsion came on, and was repeated at each operation, till the whole were extracted. *When the first convulsion took place, the doctor had his finger in the brain, feeling for one of the fragments, and was surprised to find that the lacerated dura mater closely contracted about it, till the spasm ceased, when the membrane simultaneously relaxed : subsequently, on introducing the forceps, the same contraction several times recurred so as to grasp the instrument, coming and going with the general spasms.* All the spiculæ being removed, the wound was dressed in the usual manner, and the patient speedily recovered.—*Ibid.*

Large Urinary Calculus in a Young Female.—Two or three months ago, a little girl 11 years old, was brought to us, says Dr. Drake, to be treated for the "gravel"—considerable quantities of which, it is said, she had been discharging for some years. She could not retain her urine, which escaped as fast as secreted ; suffered great pain in the hypogastric and lumbar regions ; and passed such afflicting nights, as to be obliged to take large portions of laudanum. This of course produced habitual constipation, but otherwise her health was better than might have been expected, under such acute sufferings, which had continued for about *seven* years.

On examination, we found a calculus projecting out of the external orifice of the urethra, and it was easy to perceive that it filled the bladder. By the aid of a small pair of lithotomy forceps, it was broken up, and extracted in fragments, the last of which adhered to the fundus of the bladder. As the orifice of the urethra was greatly and permanently dilated by the pressure of the calculus, it was not difficult to introduce the finger, and ascertain that all the fragments were removed. The bladder was then syringed out with tepid water, large quantities of which were thrown in, and an opiate administered. No inflammation supervened, and the little patient declared that the ensuing night was the most comfortable she had experienced for years. The object of our notice is not, however, to set forth these facts, but the following.

On examining the calculus, it was found to be composed of *uric acid.* The parents of this child had resided, from her infancy, on the banks of the Great Sandy, a river of the eastern part of Kentucky, which flows through a secondary sandstone formation, and the water she had always drunk was of course soft.—*Ibid.*

Communications omitted this week, will have a place in our next.

Died—At Newport, R. I. Dr. Benjamin W. Case, aged 63.—At Meadville, Miss. John Miller, M.D., aged 30, a native of Long Island, N. Y.

Whole number of deaths in Boston for the week ending Nov. 15, 31. Males, 13—Females, 18.

Of consumption, 7—canker in the bowels, 1—dropsy on the heart, 1—croup, 1—disease of the heart, 1—teething, 1—typhous fever, 6—infantile, 2—hooping cough, 1—dropsy on the brain, 1—old age, 1—inflammation of the bowels, 1—dysentery, 2—erysipelas, 1—sudden, 1. Stillborn, 2.

ADVERTISEMENTS.

MEDICAL BOOKS.

An Introduction to the Study of Human Anatomy. By James Paxton, Member of the Royal College of Surgeons, &c. &c. First American edition, with Additions by Winslow Lewis, Jr. M.D., Demonstrator of Anatomy to the Medical Department of Harvard University. 2 Vols.

"This work will speedily become the favorite anatomical guide of professional students, and of all those who are desirous of making themselves acquainted with the structure of the human body." *London Medical Gazette.*

"This work is an important acquisition to the general reader, and as a first book to the medical student."—*Boston Medical Magazine.*

"As en elementary book for students, and particularly for those who commence their studies without having within their reach any facilities for dissection, it is incomparably the best treatise with which we are acquainted."—*Boston Medical and Surgical Journal.*

"The purpose of our notice is to recommend this work, as supplying a want which we have long felt to exist in the libraries of general scholars, and particularly clergymen. It is the best work of the kind to be found. It is in all respects a tempting book, and highly creditable to the publishers, as a specimen of American book-making.—*American Baptist Magazine.*

The Dissector's Guide, or Student's Companion; illustrated by wood cuts, clearly exhibiting and explaining the dissection of every part of the human body. By Edward William Tuson, F.L.S., member of the Royal College of Surgeons in London, &c. First American edition, with Additions by Winslow Lewis, Jr. M.D., Demonstrator of Anatomy to the Medical School at Harvard University.

"This book is really what it professes to be, and what its name indicates. We would recommend this Guide to all practitioners who are refreshing their anatomical knowledge, and who are not so situated as to have access to a variety of books or plates, most of which are too expensive to be extensively owned."—*Boston Medical Magazine.*

The above works are introduced into many of the Medical Colleges in the United States, and the sale of the works is fast increasing.

Published by ALLEN & TICKNOR, corner of Washington and School Sts. Boston. N5—eop6w.

JAMES MANN, Preserver of Birds and Quadrupeds, Murray Place, 38 Prince Street, Boston, preserves and sets up Birds and Quadrupeds, Skeletons, &c.

Orders from gentlemen in the country punctually attended to. Sept 17—tf

THE BOSTON MEDICAL AND SURGICAL JOURNAL is published every Wednesday, by D. CLAPP, JR. at 184 Washington Street, corner of Franklin Street, to whom all communications must be addressed, *post-paid.* It is also published in Monthly Parts, on the 1st of every month, each Part containing the weekly numbers of the preceding month, stitched in a cover.—Price $3,00 a year in advance, $3,50 after three months, and $4,00 if not paid within the year.—Every seventh copy, *gratis.*—Postage the same as for a newspaper.